Issue 1 **December 2005**

Laserlab Forum

Newsletter of Laserlab-Europe the integrated initiative of European laser infrastructures in the Sixth Framework Programme of the European Union

It is with such a statement the Laserlab-Europe Consortium once entered into the competition under the 'I3' activity of the European Union. Today, when looking into the future we know that lasers will continue to change the world, probably more than ever.

An encouraging sign is the establishment of a new Technology Platform 'Photonics21' for the 7th Framework Programme, as the result of joint efforts from European photonics industry and science, and with the support from several EU Directorates-General. This inspires confidence that lasers, optics and photonics will defend or even strengthen their position in future Framework Programmes, much as they do in the society at large.

The secret behind the laser itself and many of its applications is the control of coherence. It may, in fact, be also viewed as the guiding motto of our network as a whole. On the scientific level our two Joint Research Activities strive to ever better control the coherence of light: total control over phases and amplitudes is the goal of JRA1, 'FOSCIL', while the technological barriers on the way to ultimate power and intensities are being attacked by JRA2, 'OTTER'. Judged by our Scientific Advisory Board after one year of operation, the success of these two activities is so impressive that it appears unlikely that financial support from the EU alone will be enough. The secret lies in the Consortium-wide coordination of research efforts which are pursued on a much broader basis than the EU-funded projects alone. In other words: the secret of success lies in coherence.

Similarly, this motto is one of the driving forces behind our access activities. During the first 18 months more than 280 users from 21 European countries have spent about 1600 experiment days in the Laserlab-Europe partner laboratories, 16% more than originally expected. In addition to the scientific quality and appeal of the host laboratories a strict consortium-wide organisation is one of the keys to success: Laserlab-Europe has pioneered a joint, independent external Selection Panel under the Chairmanship of Wolfgang Demtröder, and is organising the overall access activities through a dynamic implementation plan, closely monitored and supervised by a very active Access Board.

Coherence between the Laserlab-Europe activities is achieved through networking. Networking, in turn, lives through communication. Therefore it is with greatest pleasure that I present this first issue of our newsletter to the consortium, to all our friends and to the laser community at large.

Professor Wolfgang Sandner
Laserlab-Europe Coordinator

IN THIS ISSUE

Congratulations Professor Hänsch!

The future may still draw from discoveries in basic laser science: Theodor W. Hänsch, one of the directors of our partner institute MPQ Garching, was awarded the 2005 Nobel Prize. It was his perception that ultra-precise metrology can not only be performed with ultra-stable single-frequency lasers, but even with a broad mixture of laser frequencies – provided one can control their coherence such that they cooperate to form ultra-short pulses. Laserlab-Europe congratulates our friend and colleague Theodor W. Hänsch on his well-deserved award!

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A broad consensus in the scientific community

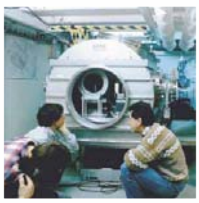
Professor Ferenc Krausz, Laserlab-Europe partner, is a close collaborator of Professor Hänsch at the Max Planck Institute for Quantum optics (Garching, Germany). His group ranks among the first as regards to attosecond pulse generation. To him, the Nobel Prize-winning frequency-comb technique, invented by Professor Hänsch, has an unquestionable impact on the future of photonics and related applications.

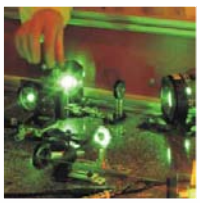
What were your first thoughts upon learning about the decision from Stockholm?

I was thrilled to bits! I do not know anyone else in physics who would have deserved the Prize more. Professor Hänsch's groundbreaking work has paved the way for several previous Nobel-prize winning achievements such as laser cooling and Bose-Einstein condensation. By developing the most precise measuring technique on Earth, he also offered the potential for major breakthroughs in other areas in the future.

…including attosecond science?

This is just one of several examples of the far-reaching implications of his work. Attosecond science, as I define it, is the science of electronic motion on an atomic and a molecular scale. Experimentally, attosecond physics aims to provide the tools and techniques to control and observe such motion. It allows us the control of the electric field evolution in light waves in order to provide, for the first time, a controlled force, strong and rapidly-varying enough to steer electrons on an atomic scale. By opening the way to light waveform control, Professor Hänsch's frequency-comb technique has enabled this breakthrough.





What impact do you expect from this Nobel Prize on future European Research orientations?

Recognising Professor Hänsch's work with the Nobel Prize underlines the strong position of European laser research in increasing global competition. Therefore, I do hope that these signals will be observed in Brussels when shaping the 7th Framework Programme. It is high time that Photonics – a key technology of the 21st century – explicitly appears in European research policy, just as nano- and biotechnologies did earlier.

How can Laserlab-Europe contribute to the continuation of Professor Hänsch's work?

Advancing precision frequency metrology and attosecond science, for both of which the frequency-comb technique provides the technological basis, are among the major strategic goals of Laserlab-Europe. The network provides an ideal platform for proliferating the relevant tools and techniques and thereby strengthening Europe's leading position in these and related areas.

I3

Let's make it sound familiar

Integrated Infrastructures Initiative – or I3 – is an instrument of the European Commission designed to supply access to top level technologies to the European Research Community. Whether it puts lasers or instrumented aircraft (e.g. for environmental studies) at user disposal, the underlying idea is the same: providing the best equipment to stimulate the brightest research (see *I3: to increase researcher's mobility* on page 4) .

An I3, in a nutshell, brings together several European research infrastructures and combines three tools namely Networking, Transnational Access and Joint Research Activities which must work in synergy to achieve their common goal.

Transnational Access (or simply Access) opens the door of each participating infrastructure to users whose projects are EU funded. Based on a peer reviewed selection scheme, access typically implies research teams visiting an infrastructure and host facilities providing scientific services.

Joint Research Activity (or JRA) aims to keep access providing facilities at the international leading edge to ensure the quality of user research. In the I3 proposal, the JRA's objectives should be innovative and explore new fundamental technologies in order to improve the service provided by existing infrastructures.

Networking deals with information exchange through meetings, publicity concerning new opportunities for access, knowledge dissemination, training courses and foresight studies. With this instrument, the EC intends to promote a culture of cooperation between participating infrastructures.

Discover all the existing I3 projects on CORDIS website:

www.cordis.lu/infrastructures/projects.htm

Laserlab Forum contacts

Communication is an important part of networking. Therefore, it is my particular pleasure to welcome Armelle de Bohan as our newly appointed Newsletter Editor, who has skilfully and successfully assembled and edited the present issue, as she will do with all forthcoming ones. Similarly, the consortium welcomes the CCLRC Central Laser Facility in their new role as 'general contractor' for publicity-related activities, represented by the Communication Assistant Tracey Potts. Both Armelle and Tracey will be happy to act as contact points for newsletter- and communication-related matters within Laserlab-Europe. They will be glad to receive news and contributions from our partners and to re-distribute them in the form of this Newsletter, or by any appropriate means. We wish them all the best for their work – to the benefit of the whole network!

Professor W. Sandner

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By 2010, nearly 17,000 European researchers will have accessed a wide range of top level installations through Integrated Infrastructures Initiatives (I3) supported by the European Commission (EC).

Those are the estimations reported by the Head of the Research Infrastructures (RI) Unit of the EC, Mr Hervé Péro. Together with Christian Kurrer, RI Programme Officer, he explained the Commission's expectations concerning I3 projects like Laserlab-Europe.

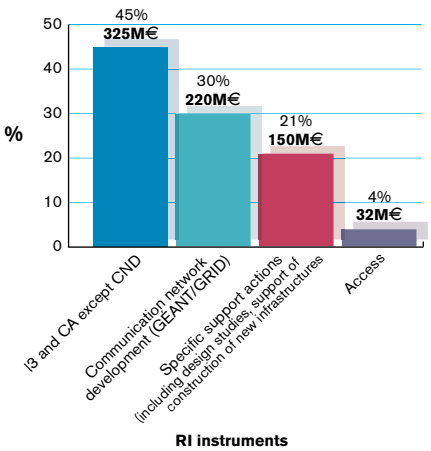
Mr Hervé Péro (centre) at an ESFRI meeting, pictured with Dr Dany Vandromme (French delegate) and Professor John Wood (Chairman of ESFRI).

I3 to increase researc

Laser development has been a priority for decades in the scientific community, notably for physicists. Now, the development of multidisciplinary approaches calls for integration of many large scale installations allowing, in particular, laser access to researchers coming from a wide range of fields. According to Hervé Péro, Laserlab-Europe answers a strong demand from the scientific community at large for using laser capacities.

"It is somehow a new flower in RI's garden. It participates in the effort to provide essential services to researchers, which is the guideline of all our activities", he explains. Indeed, Laserlab, among other projects such as GÉANT, dedicated to communication network development (CND), is thought of as an Integrated Infrastructure Initiative (I3), the main instrument for implementing RI policy within FP6 (see table 1).

Table 1: Share of various instruments in Research infrastructures budget in FP6.



Overcoming geographic and disciplinary frontiers…

The Lisbon Agenda, set-up in 2000, aims to increase EU competitiveness in a society of knowledge, but it also raises the necessity to create a market of science and technology inside European Research Area (ERA). "And it is actually the core of our activity", explains Hervé Péro, "we promote research excellence thanks to various instruments designed to overcome both geographical and disciplinary frontiers".

Thus, transnational access and joint research activities first appeared to encourage reinforcement of European collaborations. While the need for integrated activities arose with the increase of multidisciplinary approaches like Nanotechnology sciences. "Therefore", adds Mr Péro, "the 6th Framework Programme proposed networks of excellence and integrated projects to better support thematic research activities and, in a second stage, I3s which are a clear innovation to support integration of research infrastructures at a European level."

To create synergy with national research policies…

The design of I3 merges access, networking and joint research activities to stimulate supply of a wide range of scientific and technical services within virtual Pan-European infrastructures.

This kind of instrument is built upon national research plans and actions, and aims at completing and enriching rather than replacing them. Indeed, on top of national infrastructures, EC instruments offer researchers an extra opportunity to be competitive at the international level.

In fact, notes Mr Péro, "conflicts with national interests could only be due to the European excellency criterion which prevails in the evaluation of I3 projects.

This is obviously incompatible with a fair return on investments for any Member States".

Furthermore, when it comes to the selection of I3 projects like Laserlab, even geographical criterion has no impact except from a strategic point of view: "we always pay attention to the benefit for the ERA, all projects must include an optimum of EU countries – a minimum of three being a *sine qua non*" specifies the Head of RI Unit.

lessons from each experience and to identify best-practice examples that can help improve forthcoming Framework Programmes."

The assessment of I3s after 3 years of functioning shows that this new instrument has proven to be a success with the scientific community. Among 248 infrastructures providing access, 216 are involved in I3's. Moreover, even if Physics, Environment and Computer Science gather

99% of I3 projects pass mid-term review

The mid-term review meeting of any European project brings together the EC Programme officer and all the partners to make an assessment about how the project is running. At the end of this review, the project may either stop, if the partnership does not work, or continue with or without modifications of the initial objectives. "In the case of I3s, the negative outcome is very unlikely to happen", explains Mr Péro, "typically, an I3 responds to a specific demand of a wider scientific community. Therefore, its mid-term review will focus mainly on identifying ways to improve the modus of operation of the I3 and to better serve the users of the facilities. It is quite likely that half of the I3 projects will not need any modifications. In other cases, specific recommendations will be formulated. The extreme case that an I3 may have to be terminated prematurely might only happen in something like one percent of the cases."

To prepare Laserlab's mid-term review scheduled in 2006, the partners should focus on the same evaluation criteria as used at the proposal stage: scientific excellence, coordination quality and management efficiency. Mr Péro's last comment is encouraging: "we are relatively satisfied with the Laserlab-Europe project, to such an extent that, in a press conference last February, we quoted Laserlab as a good example of I3 practices!"

chers mobility

To adapt I3 procedures to objectives

Other evaluation criteria are the impact upon the user community and the consistency between organization model designed by the proponents and their objectives. For instance, Laserlab-Europe, which aims to engage in transnational

We promote research excellence thanks to various instruments designed to overcome both geographical and disciplinary frontiers

access in a coordinated way, has set up its own scheme to manage user proposals via a single entry point for the 15 infrastructures. "This coordination is certainly one of the original features of Laserlab", mentions Christian Kurrer, Programme Officer in the RI Unit who monitors the course of the project. "As EC representatives, we pay a lot of attention to that kind of operating and strategic aspects of each I3 project. Our main goal is to learn

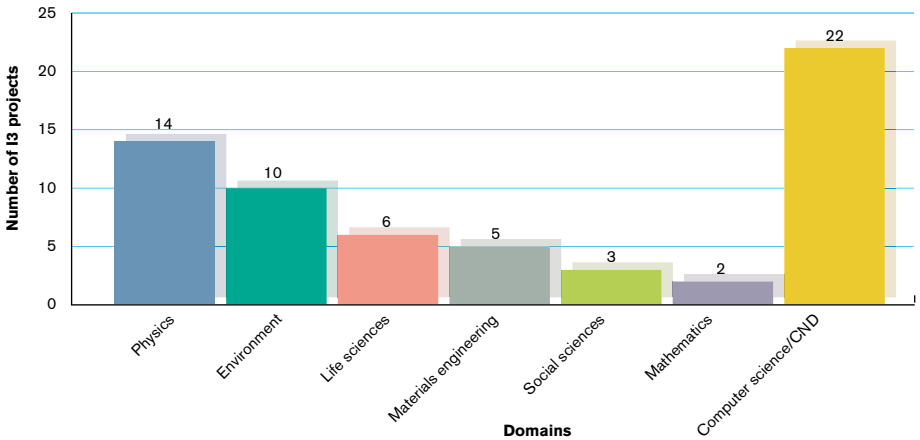
the highest number of projects, all research fields are represented (see Table 2). "And we are willing to continue and reinforce the I3 activity within FP7" explains Mr Péro. "Provided we obtain the necessary financing, our will is to double the I3 budget since it has proven its positive impact on the ERA structuring."

Next in FP7...

As to the continuation of a Laser I3 project such as Laserlab in the FP7, "doors are open" confirms Mr Péro, "because innovation won't be a *sine qua non*".

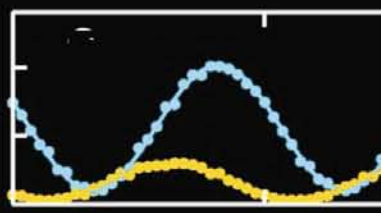
Actually, the selection criteria will include scientific excellence – notably the consistency of the project objectives with the scientific community demand – the impact on the sustainable development of the ERA and finally the implementation quality of the project taking into account the partners' involvement, EU countries' support and management. "Therefore, a Laserlab II is certainly conceivable, but potential coordinator should check whether the help of the EC is essential to launch the project. Laserlab sustainability could be ensured by an efficient coordination between various participating countries".

Table 2: Number of I3 projects per domain.



Advancing the state-of-the-art in ultrafast op

Professor Wim Hogervorst, Laser Centre Vrije Universiteit, Amsterdam, coordinator of JRA FOSCIL reports on the first 18 month assessment of the project.



The FOSCIL programme progresses according to expectations and is highly successful. Excellent science has been produced, resulting in more than 25 scientific papers, published in refereed and prestigious journals, and in numerous conference contributions. Several of the innovative experimental possibilities are already open for access within the framework of the programme of Laserlab-Europe.

Ambitious objectives

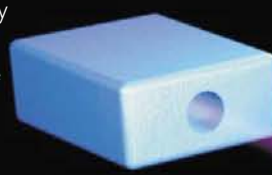
The Joint Research Activity 'FOSCIL', involving 10 out of the 18 Laserlab partners, aims at implementing complete control over intense femtosecond (fs) coherent radiation. The ultimate goal is to extend the frontiers of several sub-fields of modern optics, including nonlinear optics, time-resolved and frequency-resolved spectroscopy.

Nowadays, routine techniques allow for the control not only of the spatial and temporal profiles of laser pulses but also of the carrier envelope phase with respect to the phase of the oscillating electric field and of the polarisation state across the pulse. The objectives of the project are to frequency-transform these electromagnetic fields of intense, ultra-short laser pulses by nonlinear optical techniques to yield uniquely-controlled coherent radiation. These pulses will generate wavelengths from the near infrared through the visible, ultraviolet, extreme ultraviolet to the soft X-ray range with unprecedented characteristics such as sub-fs pulse duration and accurately-known frequencies (in the corresponding frequency comb 'ruler') for metrological applications.

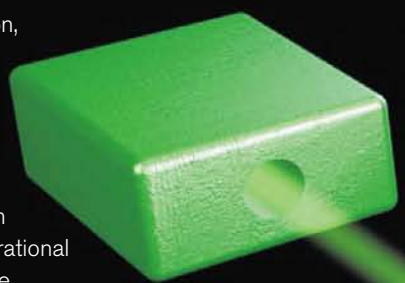
The 2005 Nobel Prize awarded to Professors Hall and Hänsch has already paved the way for these ambitious goals that now requires the development of new pulse amplification techniques, of extremely powerful pump laser sources adapted to these amplifiers, and of new diagnostic instruments to measure and control the ultra-short light pulses in the various wavelength ranges.

Highest peak power and accurate frequencies achieved for ultra short pulses

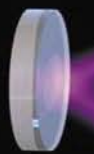
Much progress has been achieved over the first eighteen months of FOSCIL. First, the highest peak power (>1TW) reported so far has been produced for sub-10 fs, and fully phase-controlled pulses using a two-stage parametric amplifier system. The challenge is now to further increase both peak power and repetition rate. Moreover, the frequency-comb structure of the phase-stabilized ultra-short laser pulses now allows for spectroscopic applications after down-conversion into the near-infrared or up-conversion into the ultraviolet.



In this connection, absolute frequency measurements in the near-IR were demonstrated on molecular ro-vibrational transitions on the fundamental ν3 band of CO_2 around 4.25 μm and on transitions in the metastable He atom around 1083 nm.



In the UV quantum-interference spectroscopy in krypton was performed on the two-photon transition $4p^6$-$4p^5$ $5p[1/2]_0$ (at 94092.86 cm^{-1}, lifetime 23 ns, 2x212.55 nm) using a frequency converted and amplified frequency-comb



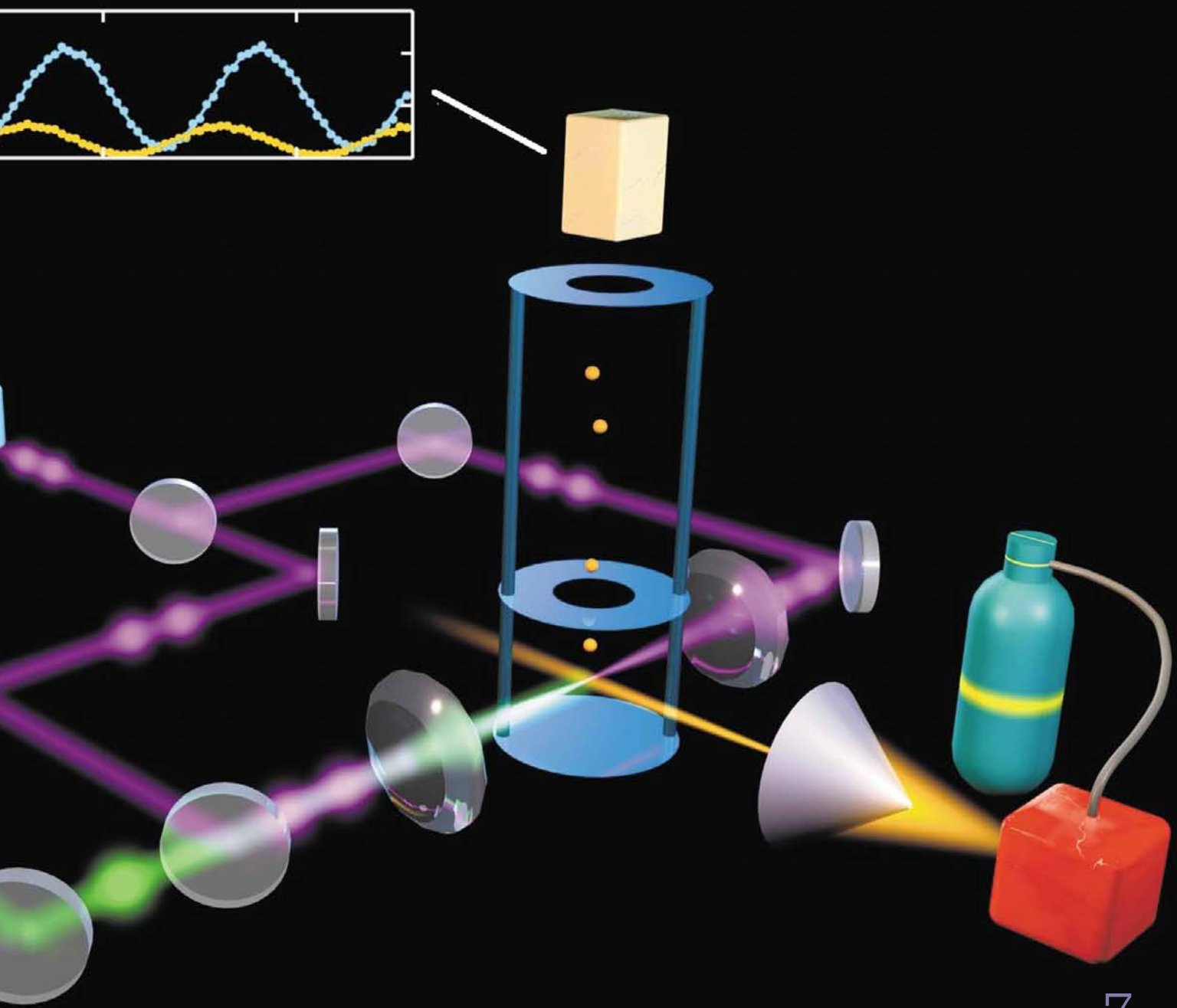
laser, demonstrating that sub-MHz resolution is possible in the UV. This experiment paves the way for metrology in the VUV and XUV. It has also been demonstrated that the frequency-comb can be extended into the XUV.

Progress in laser pulse diagnostics

Various methods for the characterization of laser pulses in the visible could be extended to much shorter wavelengths in the UV and XUV and are used by various partners for harmonic and attosecond pulse characterization. It involves methods such as XFROG (cross correlation frequency resolved optical gating), RABBITT (Reconstruction of Attosecond Beating by Interference of Two-photon Transition) and SPIDER (Spectral Phase Interferometry for Direct Electric field Reconstruction). Also several types of dispersion-free auto-correlators for the XUV were tested.

Progress in short-pulse harmonic generation

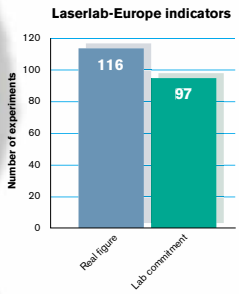
Finally, the control of TW pulses and the optimisation of high harmonic generation at the high peak energy of powerful conventional lasers is pursued vigorously. This is combined with studies to shorten their pulse length in order to generate attosecond XUV laser pulses. Pulse shortening is studied by applying the technique known as polarisation gating and first evidence of pulse reduction could recently be observed. Alternatively, pulse compression by coherently exciting rotational wave packets in molecular nitrogen as a Raman-active media has also been demonstrated recently. Compression of 100 fs pulses of 200 nm radiation to 34 fs has been achieved thus far in a capillary tube filled with N_2 gas.



Stoppa/CEA

The smooth running of the access management is key to ensure that Laserlab-Europe achieves one of its main goals: providing beam time to European researchers. As the Chairman of the Access Board, Didier Normand helps us understand what the main assets of the Laserlab system are. He also draws up the first 18 month assessment: fulfilment beyond expectations!

Towards an Acces

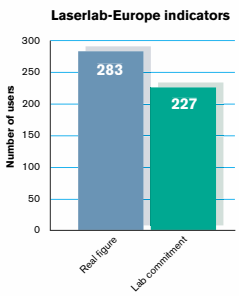


What are the special benefits of your Access system?

The Access Board is very satisfied with the management of proposals and their selection in which we have adopted a policy of openness at all stages.

First, thanks to our website, all access opportunities are available at a glance to the users: a significant amount of the user time is saved! Then, the proposal evaluation scheme, detailed on the website, aims to guarantee equity in file treatment. Our originality lies in the existence of a single selection panel which reviews all proposals whether it is submitted at ULF-FORTH (Greece) or at VULRC (Lithuania). Our system is all the more fair-minded as the selection panel does not belong to our network. It freely appoints two referees to evaluate each proposal. Therefore, the anonymity and the neutrality of the latter are ensured.

Last but not least, redirection of an accepted proposal to another Laserlab infrastructure is feasible, which is particularly important on a medium term to guarantee that selected experiments are carried out. We might, in the future, have to face situations where a project is scientifically approved but the selected facility cannot provide the requested beam time. In Laserlab, the Access Board can transfer the project to another host facility. This is a major benefit of our integrated infrastructure in order to fulfil user demand whatever happens.



With the help of all these procedures, we are aiming to finalise some kind of Access quality standard.

In that perspective, how would you assess these first 18 months?

Fulfilment beyond expectations! Over the 252 proposals we have received and dealt with, 184 were positively evaluated by the selection panel. It corresponds to a 73% acceptance rate which is consistent with the high quality of the proposals, according to our Scientific Advisory Board (SAB). Indeed, during its annual meeting last February, SAB members have mentioned that they had been 'impressed by the scientific relevance of the access programme'. Among the positively evaluated proposals, 116 experiments were effectively carried out during the first 18 months of the contract, that is on average 50% of all proposals.

Why be an Access provider in Laserlab?

Pascal d'Oliveira, coodinator of Saclay Laser-matter Interaction Centre (SLIC).

SLIC was already involved in the European Commission access programmes before becomimg part of Laserlab-Europe. According to your experience, why integrate into such a network?

I think we greatly benefit from the network synergy. Our individual supply of access is certainly much more visible as part of Laserlab-Europe, notably thanks to our common Internet platform. Any user visiting a partner's website is redirected towards ***www.laserlab europe.net*** *where they can learn about the existence of all the other partners.*

Moreover, since our research field is highly competitive we are constantly seeking originality to promote our laser access. By providing access within a network, besides adapting our infrastructure to user demand, we also have to develop unique lasers and experimental set-ups in comparison with other partners.

What is the originality of SLIC's facilities?

In brief, we have developed ultrashort, tuneable and high intensity sources which we can now either provide separately or, in many cases, combine in a single set up. Our laser equipment offers a wide range of wavelengths which allows for two colour pump-probe experiments from infrared to extreme ultraviolet. We have also developed an expertise on ultrafast laser characterisation. Our originality also arises from the rare experimental set-ups developed by our research teams such as a photoelectron imaging spectrometer or the up-conversion laboratory. Finally SLIC can also provide a rare radiation-shielded experimental area for ultra-high field physics at high repetition rate.

Is the access programme well received by your own research teams?

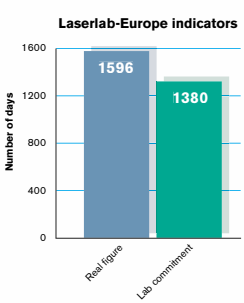
I guess they mainly approve of it. My opinion is that the Laserlab-Europe access activities give them further opportunities to enlarge and reinforce their collaborations with external groups. In most cases, European users bring to SLIC new ideas together with complementary scientific and technical expertise.This makes it possible to carry out experiments which otherwise would not have been done at SLIC. In that sense, the Laserlab-Europe access activities benefit not only our European guests but also our own research teams.

s quality standard

However, the most important point is that all partners really got fully involved! 15 infrastructures committed themselves to provide a certain amount of access days and all of them have fulfilled their commitment. On average, Laserlab has even provided European users with 15% more access days than expected from the first implementation plan. No doubt that we all rallied around the access principle and this is very good news.

Tell us about the selection procedure you mentioned?

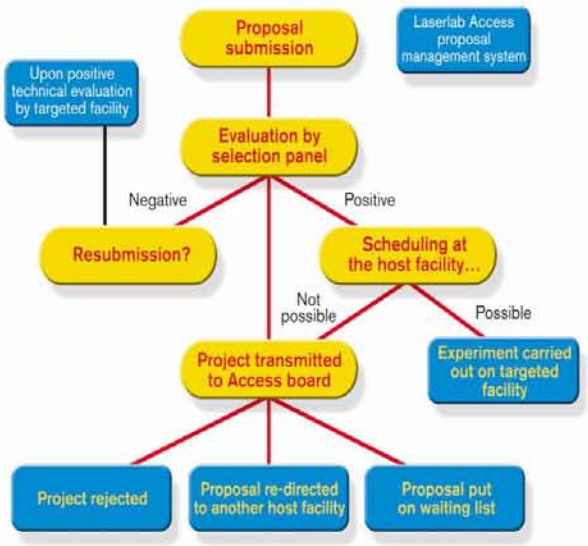
Actually, these first 18 months allowed us to optimise it, as shown by the speed of the response time of the selection panel: 90% of the projects were evaluated within less than 10 weeks in 2005 against only 40% in 2004. The main reason for this improvement is that our referee network has doubled to reach around a hundred members and we keep thinking of other improvements to ensure the quality of the access management.



What kind of improvements are you thinking of?

In order to efficiently evaluate the proposals they receive, referees have mentioned their need for a more detailed argument. Among other statements, the relevance of the proposal regarding the state-of-the-art in the related field should be clarified. Moreover, the feasibility of the experiment within the requested time slot should be somehow "demonstrated". We will try to modify the proposal form in that respect.

Finally, we will develop a user feedback form. Indeed, user meetings that were held twice since the beginning of the network were partially aimed at recording user opinion about their experience as Laserlab-Europe users but such a form would help us to get a systematic evaluation of each access. Any suggestions from users on how to improve our access would be welcome!



User meetings a good start!

Two joint meetings between Laserlab users and facility managers were successfully organised in 2005, both were occasions for users to report on their Laserlab experiments and experiences.

Delegates at the Laserlab Users meeting held in Oxford in April 2005.

Oxford and Amsterdam successively and respectively welcomed Physics and Life Science user meetings in April and September.

A glance at both agendas was sufficient to realise how wide the field of laser applications is. The plasma community, well-represented in Oxford, reported on many topics such as particle acceleration, ionisation dynamics or opacity measurements, while the Dutch meeting highlighted carbon nanotube dynamics, mechanisms in photosynthetic reaction centres, not to mention monitoring of muscle and brain functions.

The broadness of the 'application spectrum'

is indicative of the wide variety of lasers at user disposal within Laserlab. Therefore, these joint meetings allowed facility managers to update user knowledge about current laser capabilities as well as plans for their upgrade.

These joint meetings allowed facility managers to update user knowledge

Final round table discussions were used as feedback and 'brainstorming' sessions. The 'access pressure' was notably among Amsterdam's hot topics. Indeed, some of

the 'previous' users were concerned about EU policy giving preference to new users. Professor Sandner stated that the repetition issue was not part of the evaluation process by referees although the selection panel, who makes the final decision, should take it into account. The Laserlab coordinator also suggested that other funds could certainly back repetitive visits.

However, the demand for access is an indication of how successful Laserlab has become. Among the attendees in Amsterdam was a Polish user who expressed her satisfaction regarding the access of Laserlab and explained that she highly recommended the network to other researchers within her country.

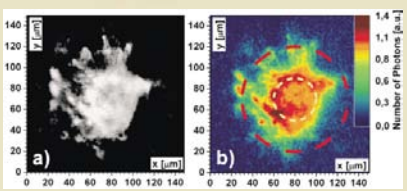
The plasma community benefits from Laserlab access

The Laserlab Scientific Advisory Board have selected various access highlights during their last meeting in February 2005. Among them, a plasma physics experiment on 'proton acceleration by thin foils' run at LULI facility by Professor Oswald Willi's team from Heinrich Heine University (Düsseldorf, Germany).

Within Laserlab-Europe, Professor Willi wears two hats since he is a regular user of the CLF and LULI facilities as well as being a referee for several other Laserlab facilities. He comments about the advantages of European transnational access.

"For university people like me, running plasma physics experiments without large scale facilities like LULI or CLF would just be impossible. Such infrastructures are completely unaffordable for most research institutions and consequently we really benefit from European access to such top level facilities.

Therefore, I can only be very positive about Laserlab-Europe transnational access initiative. Large scale facilities such as LULI provide fantastic outcome, for instance, in terms of publications with international impact.



In fact, from the plasma community point of view, one can regret that only about 25% of submitted proposals to LULI and CLF can be funded. I do hope that the number of EU funded access days in large scale world leading facilities will increase in the future."

Photonics for Europe

Technology Platform Photonics21 launched successfully

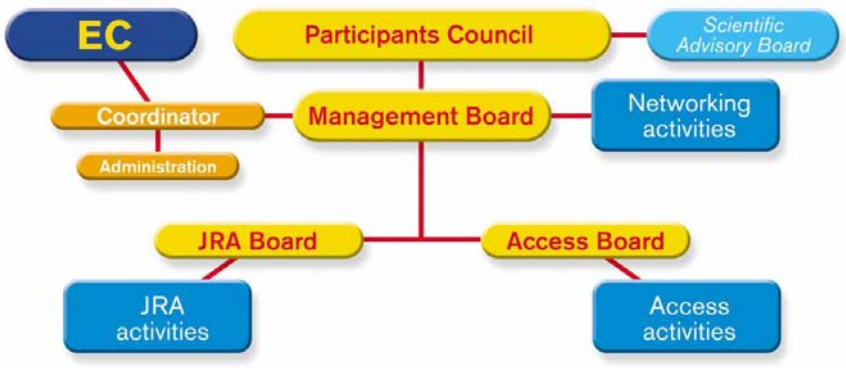
Alexander von Wilzleben, CEO, Jenoptik Germany, meets Viviane Reding, EU Commissioner for Information Society and Media.

PHOTONICS 21

Over 200 experts from 16 European member states and 120 companies celebrated the launch of the European Technology Platform Photonics21 in Brussels on 2 December 2005. The European Commissioner for Information Society and Media, Viviane Reding, officially opened the workshop Photonics21 on the second day, where the participants laid the foundations for a common strategic research agenda.

"Photonics is one of the most important future industries for Europe. The benefit of photonics can only be fully exploited by international and European cooperation. Photonics21 is a first very important step towards a European leadership", stated Commissioner Reding.

Management structure of Laserlab-Europe



Announcements

Forthcoming events 2006

Laserlab meetings

Management Board Meeting, Munich, Germany
27 January 2006

Laserlab Participant Council 2006, Paris, France
9-10 February 2006
The Scientific Advisory Board meeting will be held on this occasion.

Scientific Advisory Board Meeting, Paris, France
9 February 2006

How to apply for Access

Interested researchers are invited to contact the Laserlab-Europe website at www.laserlab-europe.net/access/, where they find all relevant information about the participating facilities and local contact points as well as details about the submission procedure. Applicants are encouraged to contact any of the facilities directly to obtain additional information and assistance in preparing a proposal.

Proposal submission is done fully electronically, using the Laserlab-Europe Electronic Proposal Management System. Your proposal should contain a brief description of the scientific background and rationale of your project, of its objectives and of the added value of the expected results as well as the experimental set-up, methods and diagnostics that will be used.

Incoming proposals will be examined by the infrastructure you have indicated as host institution for formal compliance with the EU regulations, and then forwarded to the Users Selection Panel (USP) of Laserlab-Europe. The USP sends the proposal to external referees, who will judge the scientific content of the project and report their judgement to the Users Selection Panel. The Users Selection Panel will then make a final decision. In case the proposal is accepted the host institution will instruct the applicant about the further procedure.

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